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10/509,635

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04/01/2010

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EXAMINER

SULLIVAN, DANIELLE D

ART UNIT

PAPER NUMBER

1616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/509,635 | Applicant(s) AMMERMANN ET AL. | |
| | Examiner DANIELLE SULLIVAN | Art Unit 1616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,18,22 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,16,17,19-21,23-25 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 4-6 and 16-30 are pending. Claims 6, 16, 17, 19-21, 23-25 and 27-30 are under examination. Claims 4, 5, 18, 22 and 26 withdrawn as being drawn to a nonelected species.

Election/Restrictions

Applicants traverse the requirement for the election of a single compound of Formula I a) (pyraclostrobin) and a single crop protectant b) [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H-pyrazole-4-yl) a compound of Formula IX in the restriction filed 12/11/2008. Applicants argue that the claims are clearly disclosed as being connected in design, operation and effect. The Examiner is not convinced by this argument because the structures encompass different classes and subclasses which are classified differently and many or many not include heterocyclic compounds. Therefore, the compounds are seen as independent and distinct.

Withdrawn rejections

Applicants amendments and arguments filed 8/27/2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 16, 17, 19-21, 23-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (US 6,159,992) in view of von Deyn et al. (US 2002/0025910).

Applicant's Invention

Applicant claims a method for increasing the resistance of crop plants to phytotoxicity, comprising treating the crop plant, soil or seeds with pyraclostrobin applied with [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl). Claim 20 specifies the subterranean parts of the plants (soil/seed) are treated. Claim 23 specifies the plants treated include wheat, barley, rye, oats, rice, turf, maize, bananas, cotton, soya, coffee, grapevines, fruits, ornamentals and vegetables. Claim 29 specifies the combination is applied to the plants or soil in an amount of from 0.1 to 2 kg/ha. Claim 30 specifies the amount applied to seeds is 0.001 to 0.1 g/kg of seeds.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

Muller et al. teach fungicidal mixtures comprising a carbamate of formula I which encompasses pyraclostrobin (abstract; Formula I.32). It is preferred that further active ingredients are admixed that are herbicidal (column 3, lines 5-10). The plants treated include grass, oats, cotton bananas, coffee, maize, fruit, rice, soya, grapevines, wheat, ornamentals, rye barley and a variety of seeds (column 3, lines 19-24). Application rates range from 0.01 to 8 kg/ha and for seed treatments the range is from 0.001 to 250g/kg of seed (column 3, lines 52-64). The compounds are applied against fungi to the plants, soil or seeds (column 4, lines 56-60).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Muller et al. do not teach that pyraclostrobin is applied in combination with [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl). It is for this reason that von Deyn et al. is joined.

Von Deyn et al. teach 3-heterocyclyl-substituted benzoyl derivatives in formula IX, including [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl) (abstract; column 27, lines 16-30). The compounds have herbicidal activity (column 2, lines 47-49; column 123, lines 35-45). Application rates range from 0.001 to 3 kg/ha (column 126, lines 55-59). To widen the spectrum of action and to achieve synergy the 3-heterocyclyl-substituted benzoyl derivatives can be mixed and applied to other herbicides or growth-regulatory active ingredients (column 126, lines 60-64). However, the von Deyn et al. reference teach that it is advantageous to

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combine the compounds with additional crop protection agents, including those used for controlling phytopathogenic fungi with non-phytotoxic oils (column 127, lines 20-29).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Muller et al. and Deyn et al. to utilize a combination of pyraclostrobin and [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl. One would have been motivated to combine the two ingredients because Deyn et al. teach that [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl is advantageously combined with fungicides and that non-phytotoxicity is important in formulating the end product. Furthermore, Muller et al. teach that pyraclostrobin is preferably applied with other ingredients that are herbicidally active. Hence, one of ordinary skill in the art would have been lead to combine pyraclostrobin with [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl in order to achieve a composition which reduces phytotoxicity and has dual action as a herbicide and a fungicide .

Response to Arguments

Applicants arguments filed 8/27/2009 have been fully considered but they are not persuasive.

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Applicants argue that while the teachings of Muller et al. and von Deyn et al., allow for the compounds to be combined, von Deyn et al. gives no indication as to the nature of any advantage which might result from any such combination. This argument is not persuasive because it is well known that combining prior art elements according to known methods to yield predictable results is prima facie obvious in view of KSR International Co. v. Teleflex Inc., 550 U.S. 82 USPQ2d at 1396. The present invention is directed to a method of increasing resistance of crop plants by treating them with a combination of pyraclostrobin and [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl). Muller et al. teach that pyraclostrobin controls phytopathogenic fungi in rice (column 3, lines 19-24) and von Deyn et al. teach that [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl) acts against weeds without damaging the rice crop plants [0609]. Therefore, one of ordinary skill would have been motivated to combine the two compounds in order to increase the resistance of rice with a reasonable expectation of success. The specification, page 24, Table 2a shows that the combination of the compounds has no phytotoxicity in rice only when the application rates of pyraclostrobin (II-5) and [3-(4,5-dihydroisoxazol-e-yl)-methanesulfonyl-2-methylphenyl]-(5-hydroxy-1-methyl-1H—yrazole-4-yl) (B) are 0.125 and 0.0039 kg/ha respectively. However, the showing is insufficient because the data presented is not a proper side by side comparison because the effect of II-5 at 0.0039 kg/ha has not been documented. Furthermore, the showing is not commensurate in scope with the claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan
Patent Examiner
Art Unit 1616

/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616